

FMC DIO 5CH

FMC Digital I/O - 5 channels TTLA

FmcDIO5chTTLA is a 5-bit port digital IO card in FMC form-factor. Each single-bit port can be configured individually as input or output. The I/Os that are on LEMO 00 connectors are TTL compatible.

It has been designed as the most generic board of the White Rabbit project and can be used in a wide brand of application when it is plugged within an FMC carrier (i.e. SPEC board). It is used in the SPEC starting kit.

The Fmc DIO 5ch can be used as follow:

- It can control other equipment at distance by sending digital output.
- It can retrieve input level between $V_{ih}=1V$ to $V_{ih}=5V$ by using programmable threshold.
- One of the inputs is capable of driving a global clock net in the carrier's FPGA

Output

Levels	LVTTTL, capable of driving +3.3 V over a 50-Ohm load.
States	At power-up the outputs are in Hi-Z state (V1-2 and higher)
Rise/fall	Output Rise/fall times: max. 2 ns

Input

Levels	Any logic standard from $V_{ih} = 1\text{ V}$ to $V_{ih} = 5\text{ V}$ (programmable threshold)
Thresholds	Programmable 50-Ohm input termination in each channel
Bandwidth	Input bandwidth: min. 200 MHz
Protection	Protected against +15V pulses with a pulse width of up to 10us @ 50Hz

Others

Connector	5 LEMO-00 connectors
Carriers	<ul style="list-style-type: none"> LVDS I/O on the carrier side One of the inputs is capable of driving a global clock net in the carrier's FPGA

Certifications

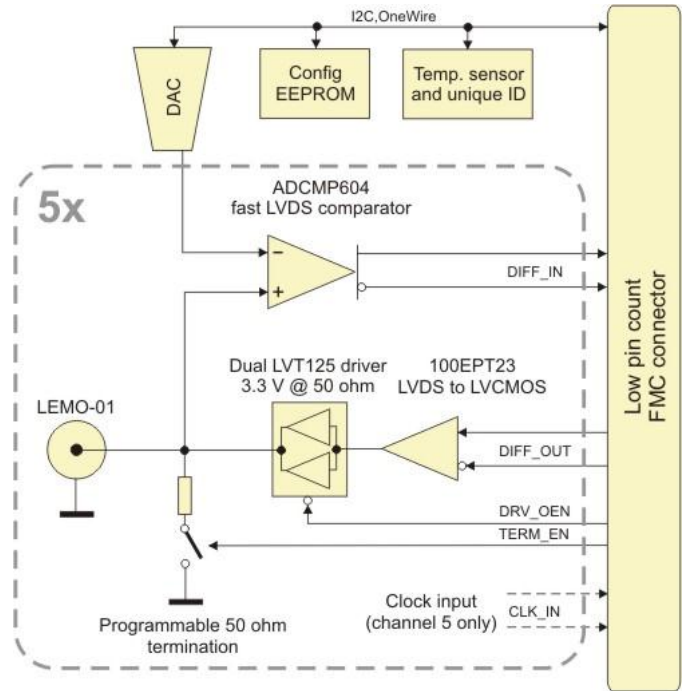
Soldering	IPC- 610 Rev E Class 2
Others	ISO-9001, ISO-14001, CE, RoHS

Physical Specification

Dimension	85,5x69 mm
Weight	

Environmental Conditions

Temperature	-10°C ~ +50°C
Humidity	0% ~ 90% RH



FMCs SPEC (Carrier board)

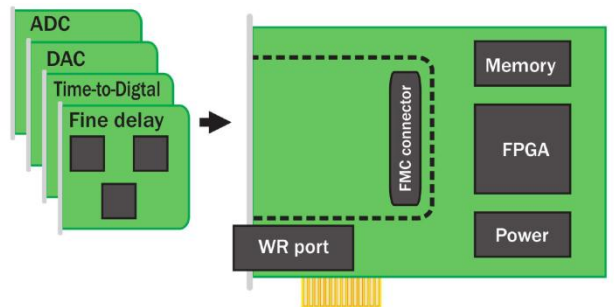
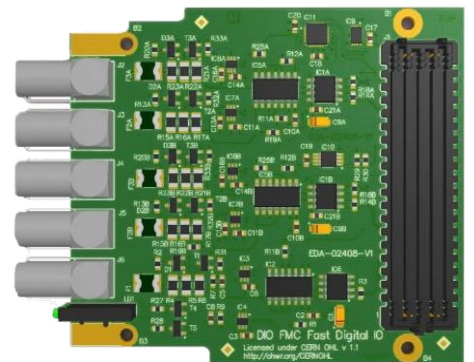
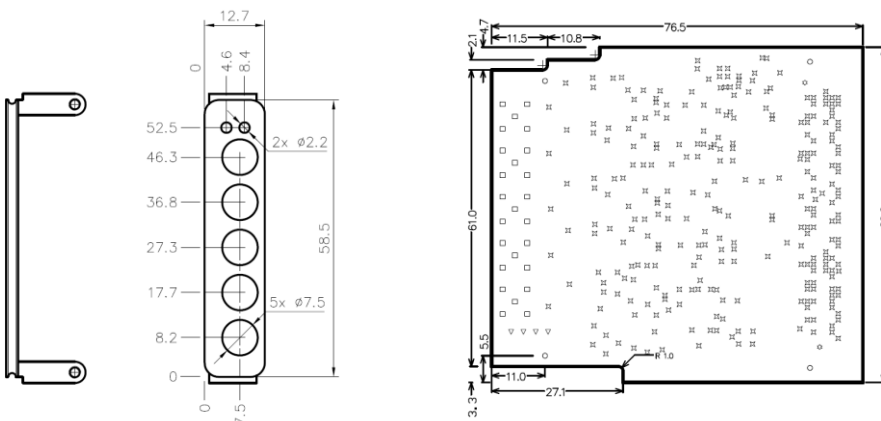


Illustration of the connection of SPEC with FMCs



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